



1st ASIAN RABIES CONTROL NETWORK (ARACON) MEETING

The Sukosol Bangkok, Thailand | 13-14 March 2018

Rabies Malaysia

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Outline

- History...Malaysia
- Immune Belt
- Human Cases... Malaysia till 2017
- Outbreak
- Surveillance
- Possible mode of spread
- Control measures
- Lesson Learned
- Conclusion

Rabies Cases (Human) in Malaysia

- Rabies has been known to occur in Malaysia since **1884**.
- It was only since **1924** that records of human cases have been kept.
- Most of these cases occurred in **Malaysian states bordering Thailand**, which is highly endemic for rabies.
- Major outbreak of rabies in Province Wellesley and Perak in 1945, and subsequently in Selangor in 1952, prompted a **National Rabies Control Programme** of compulsory vaccination of all dogs and a rigorous programme of destruction of stray dogs.
- The success of this control programme resulted in Malaysia being declared rabies-free in April, **1954**.
- However, soon afterwards small outbreaks and sporadic cases of animal and human rabies once again commenced, and these have continued to occur in the northern states of Perlis, Kedah and Kelantan and also in Selangor.

Immune Belt Area

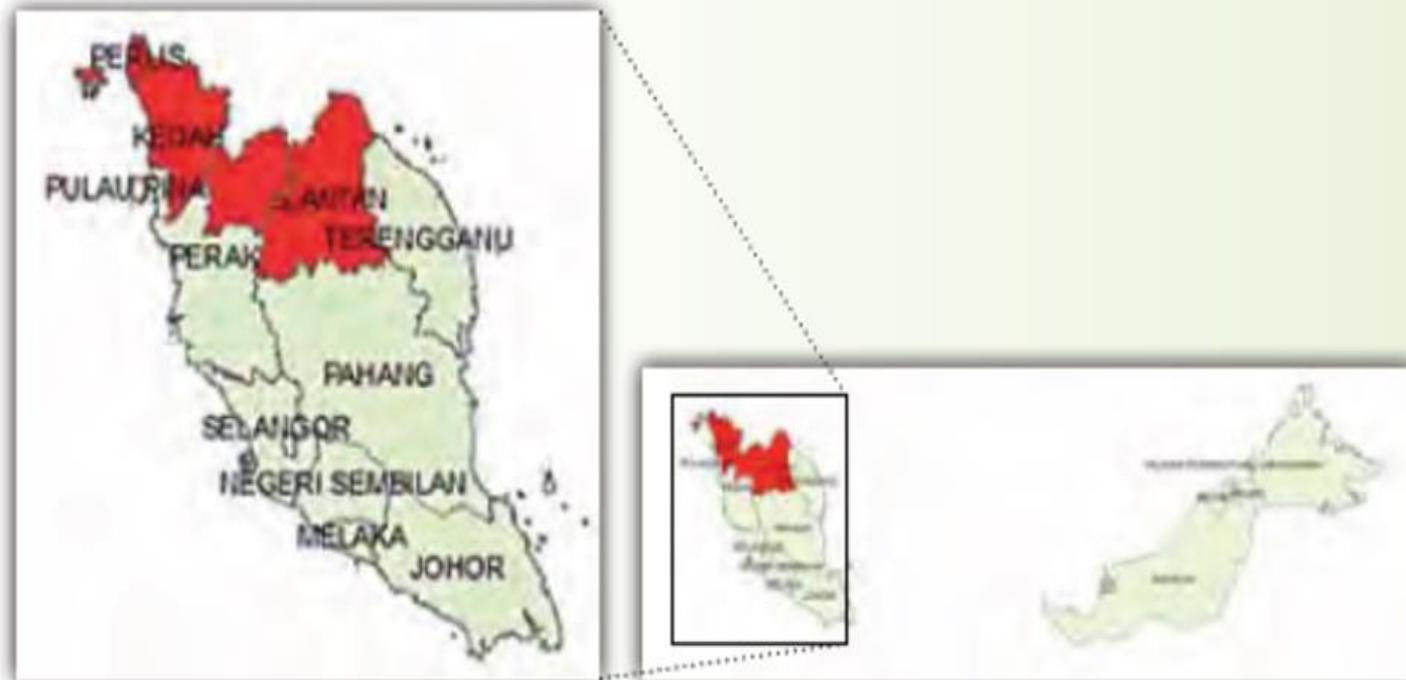


Fig. 1

Map showing the immune-belt area (in red)

Immune Belt

Notification and monitoring of dog-bite human cases in immune-belt area (Immune-belt area (50 – 80 km or 30 miles from border Malaysia / Thailand and Malaysia

Legislation and notification

Rabies is a notifiable disease in Malaysia. The surveillance and control programme is guided by the Malaysian Veterinary Protocol on Rabies (PVM 1(17): 1/2011), under the Animal Ordinance of 1953. It consists of mandatory notification, dog licensing, dog vaccination in the immune-belt area, and movement regulation, which includes continuous vigilance, strict enforcement of import regulations and quarantine measures. However, in East Malaysia, no vaccination against rabies is allowed, since these states have historically been free from rabies. The legislative powers for rabies control are aimed at maintaining this freedom from the disease.

Rabies Cases (Human) in Malaysia till 2015

Year	1995	1996	1997	1998	1999-2015 (till April 2017)
No of Case	0	5 (1 – Kedah) (4 – Trengganu)	7 (7 – Kedah)	1 (1 – Kedah)	0
No of Death	0	0	3	1	0

- Last human case in Malaysia – 1998 and last canine case reported November 1999
- Canine rabies has been eliminated from Malaysia (WHO Expert Consultation on Rabies. Second Report No. 982, 2013; 1.2.1 page 3)

Rabies outbreak Declaration in Malaysia 2015-2018



19 August 2015



17 Sept 2015



15 Sept 2015



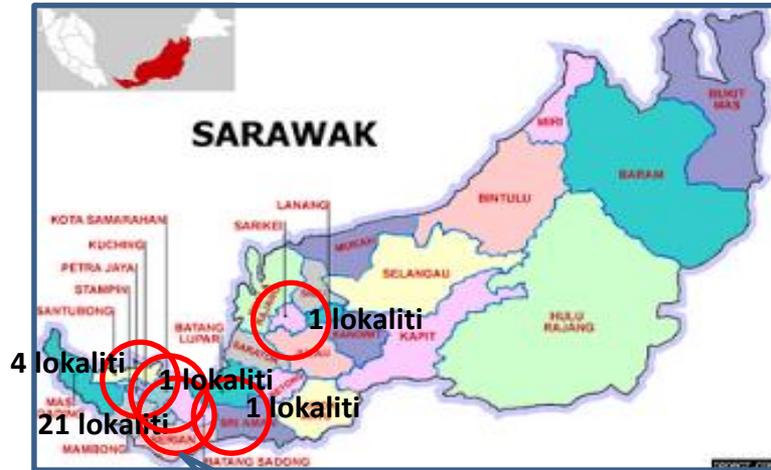
17 July 2017



Surveillance

- Dog bite surveillance - 2015
 - All cases of animal bites should be notified to the nearest District Health Office within 12 hours, using Annex 1a.
 - DHO will investigate further and forward the cases to the nearest Veterinary Office.
 - The veterinary services will investigate and monitor the involved animal, and advice accordingly. Samples for Rabies will be taken if indicated.
 - Not well implemented or monitored in Sarawak
 - Serian – not started the surveillance
- Veterinary department - carry out surveillance at the borders of Sarawak-Kalimantan, by taking samples of dogs at the buffer zone
 - Up to 2015, no reported canine rabies
 - canine sampling stopped in year 2015

Rabies outbreak Declaration Malaysia 2015 - 2018



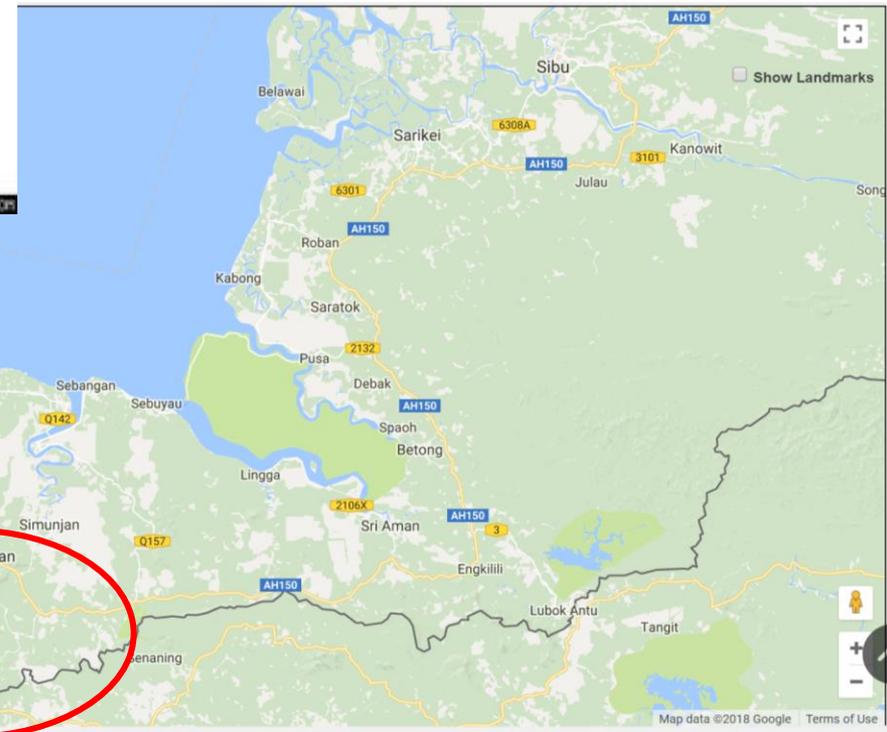
First - 4 July 2017 (Serian)



Kes Rabies (Manusia)
 Total lab -- 7 cases
 Total death - 6 orang

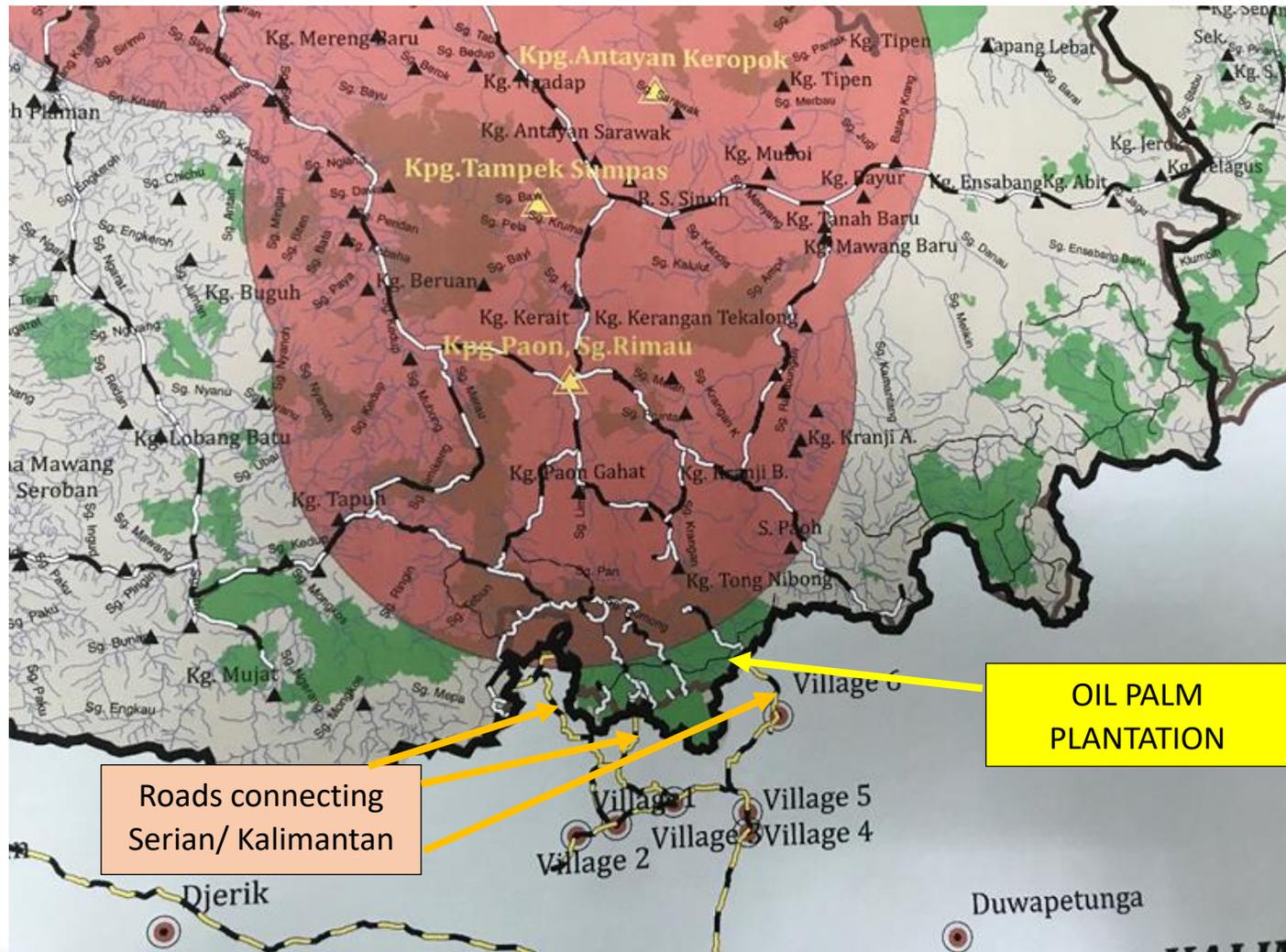


SARAWAK



Possible Route of Entrance of Rabies Virus Into Sarawak

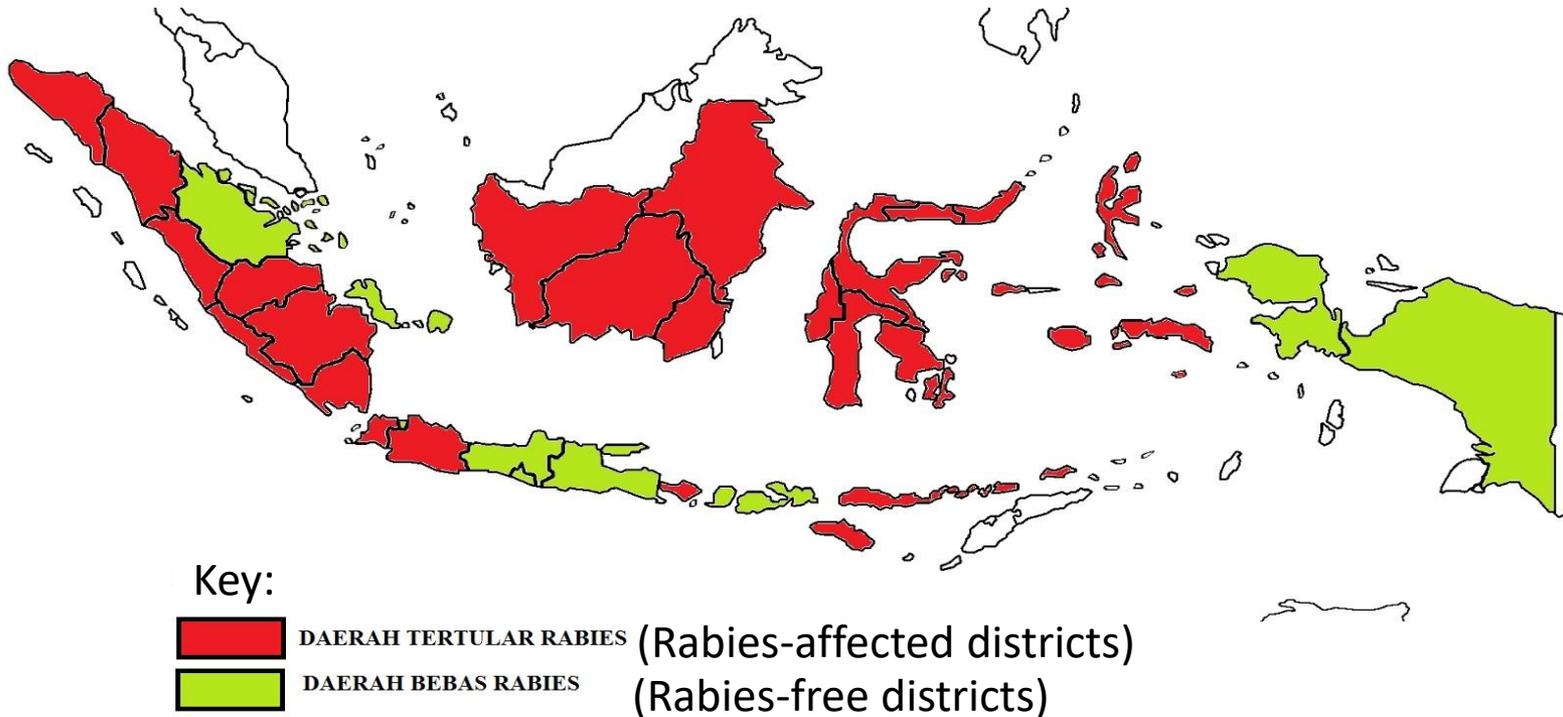
Mongkos - palm oil plantations at the borders [colour Green on map indicates oil palm plantations]



Possible mode of spread

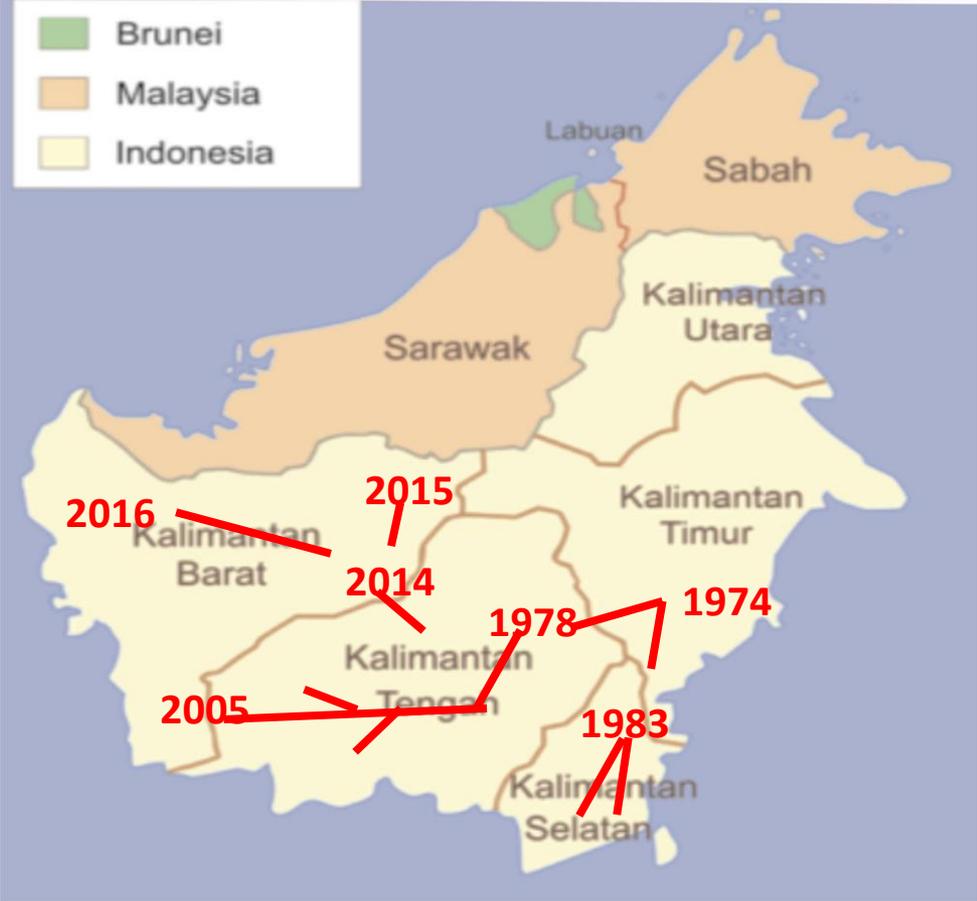
1. Movement of stray dogs infected with rabies virus (under incubation period) from the border town along the highway
2. With the construction of Pan Borneo Highway and opening up more land for oil palm plantations, foreign labourers could have brought with them animals from Kalimantan Barat
3. Adoption of stray dogs, translocation of stray dogs
4. Movement of pet dogs to other towns, following their owners
 - Pets brought along by owners to other towns, especially during long vacations such as the Gawai (Harvest Festival)
5. Some left their pets at other towns when they noted pets were ill

Distribution of rabies in Indonesia, 2017



Source: Sarawak-Kalimantan Barat Meeting, 25 July 2017

TEMPORAL DISTRIBUTION OF RABIES IN KALIMANTAN



Source: Sarawak-Kalimantan Barat Meeting, 25 July 2017

Control measures

MASS RABIES VACCINATION IN DOGS

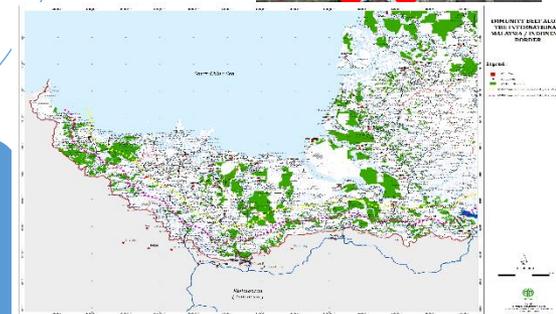


PUBLIC AWARENESS PROGRAMMES

STRAY POPULATION CONTROL



ESTABLISH IMMUNE BELT & BUFFER ZONE



RABIES CONTROL MEASURES

INTERGRATED BITE MANAGEMENT

- MOH
- DVS

LEGISLATION:

- Veterinary Public Health Ordinance 1999
 - Anti-Rabies Vaccination order
 - Declaration of infected area
 - Control movement of animals



MINISTRY OF HEALTH MALAYSIA



LAWS OF SARAWAK

REPRINT

Chapter 32

VETERINARY PUBLIC HEALTH ORDINANCE, 1999

Incorporating all amendments up to 31st May, 2008



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Lesson Learned

- Importance of surveillance... at all time
 - Outbreak in Serian
 - Outbreak in Kuching
- Importance of Risk Communication... throughout outbreak control

Challenges

- Awareness of communities on dog bite prevention
 - Challenges in urban areas
- Risk communication
 - No fear factor
 - misperception of current rabies situation
 - “double-edged sword” phenomenon
 - High incidence of avoidable bites
 - did not seek treatment/ wound first aid
 - Resistance from NGO/public in outbreak control measures
 - Poor understanding of public on control measures
- Laboratory support
- Multi-agencies collaboration

Conclusion

1. The Sarawak War Against Rabies might last for years.
2. Collaboration...all relevant agencies in the fight against Rabies.
3. Awareness on Rabies, prevention of dog bites and education on dog bite management remain crucial for the prevention of human Rabies.
4. Continue strengthening surveillance.

Acknowledgement

- Ministry of Health Indonesia
- CDC Atlanta, US
- Sarawak State Government
- Ministry of Health Malaysia
- State Health Department Sarawak
- Department of Veterinary Services Malaysia
- Department of Veterinary Services Sarawak
- And...